

The State University of New York, Albany, in collaboration with St. Regis Mohawk Health Services, intends to design community-based strategies for environmental health education, outreach, and training in the Akwesasne Mohawk community, which is adjacent to a Superfund site in the Great Lakes Basin-St. Lawrence River watershed. Environmental hazards have resulted from the rapid transition from an agricultural to an industrial environment. Industry appears to have produced high levels of polychlorinated biphenyls (PCBs) from manufacture of hydraulic fluids until 1973. Sludge containing PCBs was placed in disposal pits adjacent to the Akwesasne community and has been found in water and soil in the area. Sediments have been found in the St. Lawrence River, which serves as a major source of fish, a protein staple in the Mohawk diet. Contaminants have been found in human breast milk, and a number of symptom-related health effects have been experienced by residents. Chronic fluoride poisoning has been observed in cattle, resulting from smokestack emissions of a metal smelter. Lethal levels of organochlorines have been found in tissues of some animals in the immediate environment. This project is led and directed by members of the target community. It is implemented, evaluated, and disseminated explicitly through community members. The project team has worked together extensively and has nine years of experience in communicating information on health risks to the community.

A third grant funded under this initiative was awarded to a community organization, Citizens for a Better Environment. This group, in collaboration with the Labor Occupational Safety and Health Program and the Center for Occupational and Environmental Health at UCLA and the Community Health Foundation, aims to educate community members and health care providers, promote adoption of pollution prevention measures, and establish a community-based strategy for reducing community and worker exposure to environmental pollutants in southeast Los Angeles, a highly industrialized area home to a low-income population, approximately 90% Hispanic/Latino. Pollution sources include large, highly industrialized tracts where chemicals are routinely or accidentally released, severe urban smog, occupational exposures, and lead exposures. The zip code area which includes southeast Los Angeles was identified as the dirtiest subregion within the state of California by the EPA. About 70 manufacturing firms in South East Los Angeles reported releases of 1.4 million pounds of toxic chemicals into the air in 1992. A major objective of this

project is analysis of data to affirm the list of environmental pollutants already known and to determine whether gaps exist in the data. Environmental health issues of priority to the community will be determined and addressed. CBE has already received invitations from mayors and council members to help reduce community toxics exposure. CBE helped to develop LA CAUSE (Los Angeles Communities Assembled and United for a Sustainable Environment), a community education project that seeks to promote environmentally friendly jobs. LA CAUSE will involve and educate community members and has a history of reaching residents and workers from the region. Sources of health hazards will be identified, and strategies will be developed to attempt exposure reduction.

Book Addresses Parents' Concerns about Toxins

"Everything causes cancer," according to the old cliché. Now parents, pediatricians, social workers, and others concerned about children's health have a concise guide, *Raising Children Toxic Free*, to help them identify the real toxic hazards and adopt practical, simple precautions to protect children and themselves.

The book covers toxins that impact reproduction, behavior, development, environmental neurotoxins, and cancer. Agents discussed specifically include lead, mercury, asbestos, pesticides, radiation, tobacco, solvents and PCBs, and air pollution. The book was written by Herbert L. Needleman, professor of psychiatry and pediatrics at the University of Pittsburgh School of Medicine, and Philip J. Landrigan, professor of pediatrics and chair of community medicine and director of the NIEHS Environmental Health Sciences Center at Mount Sinai School of Medicine in New York City. The publisher is Farrar, Straus and Giroux, New York.

While some of the remedies suggested require community and political action (asbestos in the schools), other remedial action is quite direct. For example, parents can air clothes just back from the drycleaners outdoors to reduce exposure to perchloroethylene fumes in the home. Avoiding fruits and vegetables imported from outside the United States, where pes-

ticides may not be properly used, is another simple step.

NIEHS Awards Grants for EMF Research

NIEHS and the Department of Energy are coordinating the implementation of the 1992 Energy Policy Act (Section 2118 of Public Law 102-486), which was signed in October 1992. This is a five-year federally coordinated effort to evaluate developing technologies and research related to the effects on biological systems of exposure to electric and magnetic fields produced by the generation, transmission, and use of electric energy.

The Department of Energy is responsible for developing technologies to characterize and mitigate these fields, while

NIEHS is responsible for coordinating and conducting studies to evaluate the possible adverse health effects related to exposures to these fields and for communicating of these findings to policymakers and the public.

The NIEHS has a long history of funding research in this area. In August 1994, the National Toxicology Program began two-year rodent studies of the effects of magnetic fields. Magnetic fields, rather than electric, are being evaluated because epidemiological

studies are most consistent for an association of cancer with magnetic fields. New grants administered through the NIEHS Division of Extramural Research and Training, funded by the Energy Policy Act of 1992 (Section 2118 of Public Law 102-486) have further broadened NIEHS research on electromagnetic fields. Newly awarded grants funded by the Energy Policy act are:

- Dean Astumian, University of Chicago: Interactions between low-frequency AC electric fields and yeast membrane proteins;
- Elizabeth Balcer-Kubiczek, University of Maryland, Baltimore: Effects of 60 Hz EMFs on the expression of genes associated with cancer in human cell lines, HL-60 and MCF-7;
- David Binnering, Florida Atlantic University, Boca Raton: Molecular basis for the effects of 60 Hz EMFs on gene expression (transcription) in yeast;
- Craig Byus, University of California,

